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| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
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| 10/648,789 | 08/27/2003 | Yoshiro Mikami | 62807-138 | 4491 |

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EXAMINER

HOLTON, STEVEN E

ART UNIT PAPER NUMBER

2629

DATE MAILED: 06/30/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/648,789

Applicant(s)

MIKAMI ET AL.

Examiner

Steven E. Holton

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 27 March 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,4,5 and 9-13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,4,5 and 9-13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This Office Action is made in response to applicant's amendment filed on 3/27/2006. Claims 1, 4, 5, and 9-12 are currently pending in the application. An action follows below:

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1 and 9 are rejected under 35 U.S.C. 102(b) as being anticipated by Minolta (JP 2001066573).

The Examiner includes a machine translation of the Japanese publication for reference. Further the application has been submitted to the U.S. Patent office but is awaiting publishing.

Regarding claim 1, Minolta discloses a display device with a liquid crystal display (Fig. 1, element 10) the display having a matrix of pixels providing a memory nature (detailed description paragraph 2). Minolta also discloses a power supply section (Fig. 1, element 15), a detector for detecting the supply voltage of the power supply (Fig. 1, element 20), and a CPU and memory for providing data and controlling the display device (Fig. 1, elements 25 and 30).

Further Minolta discloses that based on the output of the power supply section the screen is prohibited to be redrawn if the voltage is found to be too low to update the display (paragraphs 18 and 19, also paragraph 6). The examiner notes that a data input circuit is inherent in the display device for inputting data from the CPU and memory to the display device so that images can be displayed. Further, the embodiments of the device with a battery or other type of power supply provide power storage greater than the amount of power needed to update the screen.

Regarding claim 9, Minolta discloses the power supply being a solar cell (paragraph 19).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 4 and 5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minolta.

Regarding claims 4 and 5, the Examiner notes that the limitations of these claims are essentially identical and considers the claims together.

As discussed above regarding claim 1, Minolta discloses a power supply, display unit, pixels with memory function and control circuit for driving the display unit. Minolta further discloses a power detection unit for determining if the power supplied by the

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power supply unit is enough for updating the screen and prohibiting the updating of the screen if the power is not enough to update the entire screen.

However, Minolta does not expressly discuss providing moving pictures on the display or still images. Minolta merely updates the display as long as the power supply has enough power to redrawn the entire screen. At the time of invention it would have been obvious to one skilled in the art that the display system described by Minolta could be adapted to provide moving images or sequential still images based on the power provided from the power supply. As long as the voltage from the power supply is judged to be enough to redrawn the display the display may be redrawn at any rate or speed desired including moving pictures or with a delay between still images. This would have been a matter of design choice to one skilled in the art.

4. Claims 10-12 are rejected under 35 U.S.C. 103(a) as being unpatentable over Minolta in view of Doane et al. (USPN: 6518944), hereinafter Doane.

Regarding claims 10 and 11, as discussed above, Minolta discloses all of the limitations except, "wherein the solar cell is an organic thin-film solar cell formed on the same substrate as the display unit is formed". Doane discloses an embodiment of a combined display and solar cell where "a substrate or base material are integrated into a single unit such a unit may advantageously function as both the solar panel assembly and the second or back substrate of the display thereby eliminating the need for a back substrate separate from the solar panel assembly (col. 12, line 64 – col. 13, line 29)."

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The Examiner notes that Doane discusses that the solar cell “may be silicon or other types of material such as organic solar cell material (col. 13, lines 11-12).”

It would have been obvious to one skilled in the art to combine the teachings of Minolta and Doane to produce a device as specified in claims 10 and 11. The motivation for doing so would have been to eliminate “the need for a back substrate from the solar panel assembly (Doane, col. 13, lines 1-2)”. The combining of a display unit with solar cell formed on the same substrate along with a display as described by Minolta would produce a device as specified in claims 10 and 11.

Regarding claim 12, Doane mentions that a type of display able to be used with the solar cell and display combination device is one mentioned in an article titled “Amorphous Silicon Thin-Film Transistor Active-Matrix Reflective Cholesteric Liquid Crystal Display” (col. 2, lines 63-67). Further, Minolta mentions that the liquid crystal display used is a standard display device (paragraph 13). The Examiner notes that it is well-known in the art to use thin-film transistors in many display devices to provide active-matrix displays.

Response to Arguments

5. Applicant's arguments with respect to claims 1-13 have been considered but are moot in view of the new ground(s) of rejection based on the newly found prior art.

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6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Steven E. Holton whose telephone number is (571) 272-7903. The examiner can normally be reached on M-F 8:30-5.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Amr Awad can be reached on (571) 272-7764. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Steven E. Holton
Division 2629
June 23, 2006

AMR A. AWAD
PRIMARY EXAMINER
